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DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

Yellowstone NATIONAL PARK

FILE NO. 143

MONTHLY REPORT

FOR

AUGUST, 1924.

AUGUST, 1924

September 9, 1924

Dear Sir:

The following is my report on conditions in Yellowstone National Park and on the operation of the park for the month of August, 1924:

I. GENERAL CONDITIONS

It is very difficult to put down in a few paragraphs one's impressions of the month of August, 1924. In many respects one might call it a hectic month. It was replete with disappointments, success; discouragement, encouragement; and many other diametrically opposed feelings on the part of myself and other park officers.

In the first place, with the exception of a storm shortly after the middle of the month which dampened the woods to a certain extent, the month was very dry, the forest fire hazard increased to a most alarming extent and the last week of the month was spent in fighting disastrous forest fires, one of which is probably the worst that Yellowstone Park has suffered since the great Flat Mountain Arm fire of 1910. The fires were caused by lightning in inaccessible parts of the park and it was necessary not only to move men in on horseback but also to pack in bedding, food supplies and drinking water. The big fire I mentioned was one of the most heart-breaking fires that I have ever been in contact with and I have been in contact with forest fires ever since I was a very young lad in the Sierra Nevada Mountains.

The lack of rain also played havoc with the roads which became thoroughly dried out and the high winds did much to destroy the surface of the highways, and long before the middle of the month the roads had become more pot-holed and rougher than they have been in the last three years. We had no road machinery that could improve this condition and our month's efforts were therefore confined to

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filling in chuckholes with new gravel, cleaning ditches, etc. The hills became brown and bare, wild flowers were not nearly as plentiful or as beautiful as usual and in general, the park looked bedraggled and dried up. The dust was bad everywhere and later, when the fires started, views of the mountains and valleys were made dim and distant by haze and smoke.

On the other hand, the park entertained as many visitors as we had here in August of last year. The automobile camps were kept in good condition and the hotel and permanent camp service was probably better than ever before. Our visitors were well taken care of, complaints were few, and, in general, everybody who came here enjoyed themselves to the utmost. As I have noted in previous monthly reports this season, we found our visitors anxious to conserve their funds and the buying of curios, souvenirs, etc., was restricted considerably.

The ranger force continued its unusually successful work of handling the traffic problems of the park, guiding over formations, giving out information and taking care of the campers. The ranger force this year has been a remarkably efficient organization and has been conspicuous for its success in carrying out our policy regarding kind and courteous treatment to all park visitors. This policy has brought forth many compliments and many people have told us that they were prepared to leave the Yellowstone with a new and more favorable idea of their government than they had ever had before as a result of treatment accorded them by the ranger service.

Construction and maintenance work proceeded normally until the last week of the month when several of the crews engaged in this work had to be taken to the big fire.

During the month we had an extraordinary number of distinguished visitors in the park as will be noted elsewhere in this report. There were several congressmen, writers, prominent business men, etc., among our special visitors. We were particularly happy in having the opportunity to entertain Judge John H. Edwards, the Solicitor of the Department, who spent eight days in the park covering all points of interest, the Cody region and the Jackson Hole. Likewise, we felt particularly fortunate in having Dr. Philip Work visit the park and the suggestions that he made in connection with our medical service after his inspection of the hospital are extremely valuable.

During the month it was not difficult to fill the vacancies in our organization, labor seemingly being available though not plentiful. Toward the end of the month we had great difficulty in getting

men to fill up the crews in the distant sections of the park, particularly on the road approaching the south entrance through the Teton National Forest. Delivery of supplies was fairly satisfactory.

Inspection Trips

My inspection trips during the month of August were about the same as those usually undertaken each month of the season. I was at headquarters more than in July. Even though I had the budget preparation in hand and other matters of almost equal importance I found it necessary to spend much time away from Mammoth Hot Springs.

I was at Cooke City on August 3rd and inspected the Buffalo Ranch at the same time. During the same week I covered the loop road system and went to Cody with Garet Garrett, the Saturday Evening Post writer. In connection with this trip I covered the Shoshone Reclamation project and when I returned to the park on Sunday, the 10th, I brought with me Judge Edwards, the Solicitor.

On the 10th I was on inspection at the Grand Canyon and at Tower Falls. On the 12th I again inspected the loop road system, except the section from Canyon to Mammoth via Tower Falls, leaving Judge Edwards and Congressman Jos. W. Byrns at Old Faithful. Later, Judge Edwards was taken to the Jackson Hole by Chief Ranger Woodring.

Friday, August 15th, I was again on inspection at the Grand Canyon and had dinner there with Congressman Britten of Illinois.

On Thursday, August 21st, I was again at Grand Canyon on various matters and left for Salt Lake that night via West Yellowstone, complying with instructions from the Director to meet him the following morning. I missed the train at West Yellowstone and was compelled to travel by automobile to Idaho Falls, 127 miles distant. This, however, gave me an excellent opportunity to observe road conditions and I was amazed by the improvements made on this highway in the past two years. There is now a gravel road all the way to Salt Lake City from West Yellowstone, with the exception of a very few miles near the western entrance. I was in Salt Lake City all day Friday conferring with the Director and returned to West Yellowstone the morning of the 23rd.

I met Field Accountant Farquhar at Old Faithful but continued on around the loop road system, arriving at headquarters that night

after a rather complete inspection.

The remainder of the month I was at headquarters engaged in budget work, annual report, etc.

Weather

The monthly Meteorological Summary furnished by the United States Weather Bureau for August is attached to this report. The following weather records are quoted from the same source, furnished by the local Observer:

Temperature: Monthly mean, 58.6° , is 2.3° below normal. Consistently cool except for a few days of unusually warm weather near the end of the month. The maximum of 87° on the 28th is the highest for so late in the season during the past 20 years. The lowest was 35° on the 21st and 30th.

Precipitation: Total, 1.36 inches, is 0.34 inch above normal. Practically all occurred in the rain storm of the night of the 20-21, and in the rain and hail storm of the 31st. The latter storm was accompanied by high wind, and a downpour of hail, mostly light in character, accumulated on the ground to the depth of about one-half inch. A new 24-hour rainfall record was established for August when 0.98 inch fell on the night of the 20th.

Snowfall: None at the station, but in the storm of both the 20th and 31st, snow fell at the higher levels in the park.

Wind: Average hourly velocity, 6.8 miles, is normal. The maximum velocity was 37 miles per hour from the northwest on the 31st.

Sunshine: Percentage of possible 77; normal 71.

Travel

The total travel to September 1st was 132,430, as compared with 126,011 to September 1st, 1923, and 89,667 persons on the same date in 1922. The rail travel was 36,401 as compared with 39,613 last year and 30,052 in 1922.

Motor travel to September 1st was 96,029 persons in 28,705 cars, as compared with 86,375 persons in 25,216 cars in 1923, and 59,615 persons in 16,882 cars in 1922.

By entrances the travel this year has been as follows: Northern Gateway, 37,549; Western Gateway, 49,110; Eastern Gateway, 36,416; Southern Gateway, 9355.

The favored automobile entrances were the Eastern Gateway with 8,978 cars, and the Western Gateway with 8,941 cars. The Northern entrance ranks third with a total of 8,007 cars, and the Southern entrance reports a total of 2,779 cars. The record automobile travel days for all gateways this season are as follows: Eastern Gateway, 224 cars on July 5th; Western Gateway, 191 cars on July 21st; Northern Gateway, 141 cars on July 16th; and Southern Gateway 72 cars on July 18th.

Rail travel to September 1st by entrances is reported as follows: Northern Gateway, 11, 216; Western Gateway, 18,427; Eastern Gateway, 6,577; Southern Gateway, 181. The record rail travel days for all gateways this season are as follows: Northern Gateway, 435 visitors on August 11th; Western Gateway, 488 visitors on June 26th; Eastern Gateway, 210 visitors on August 5th, and Southern Gateway, 13 visitors on July 31st.

The record day's travel this season occurred on July 22nd when a total of 2,660 persons entered the park. This is 199 persons less than the travel figures for August 7, 1923 - travel figures for that date being 2,859 persons, which is the record day's travel for Yellowstone Park. The daily reports for 17 days during the season give totals exceeding 2,000 and for another 10 days the totals exceeded 1,900 daily.

The automobile travel record of July 22nd, 1924, which totals 502 cars with 1,844 passengers, is the largest day's automobile travel in the history of the park, last year's record being 475 cars with 1,623 passengers on July 17th, and preceding record day 337 cars with 1,181 passengers on August 7, 1922.

The Chief Ranger's travel report for August, 1924, and 1924 Comparative Travel Figures with 1923 and 1922 Season, to August 31st, and a statement of automobile travel by states to August 31st, 1924, inclusive, are hereto attached and made a part of this report.

II. PERSONNEL

On August 1st there were 119 appointed employees on the payrolls and on August 31st there were 106. The following list shows the number of appointees of various classes serving during the month, with a general statement of the kind of work in which they were engaged:

<u>No.</u>	<u>Class</u>	<u>Kind of Work Performed</u>
1	Superintendent	General administration and supervision of all activities in the park.
2	Asst. Superintendents	1 in charge of administration, purchasing, disbursing; 1 in charge of property, equipment, transportation, cost accounts, inventories, etc., also acting as assistant to Superintendent in capacity as Field Assistant to the Director.
2	Asst. Engineers	1 in charge of engineering work; 1 assisting.
8	Clerks	1 Cost Accounting Clerk; 1 Personnel and File Clerk; 1 Clerk on orders, proposals and vouchers; 1 Clerk on timekeeping and payroll work; 1 Clerk assisting Cost Accounting Clerk and helping on proposals and vouchers; 1 Clerk (WAE) intermittent service, assisting with checking auto revenues; 2 stenographer typists on stenographic work for Superintendent.
3	Electricians	Operated power plant regular shift, including Sundays, read meters, did necessary line work.
3	Foremen	1 in charge of headquarters corral and freighting work about headquarters; 2 on road work.
1	Telegrapher	Sent and received all Government Western Union messages, operated one shift on telephone switchboard.
2	Telephone and Switchboard Operators	One operated telephone switchboard daily shift, including Sunday; one WAE operator.

<u>No.</u>	<u>Class</u>	<u>Kind of Work Performed</u>
1	Master Mechanic	In charge of shops and of repair to heavy road machinery.
2	Blacksmiths	General blacksmith work, including shoeing of horses in shop, repairing tools and equipment.
1	Master Plumber	In charge of general plumbing and water and sewer systems.
1	<i>Motor Painter</i>	
2	Auto Mechanics	1 on duty in power plant; 1 on repair work.
1	Carpenter	Repairing buildings at headquarters.
3	Laborers	Teaming, freighting, assisting mechanics and miscellaneous work at headquarters.
1	Steward & Master of Transportation	In charge of all transportation and of storehouses.
1	Chief Buffalo Keeper	In charge of tame buffalo herd.
1	Asst. Buffalo Keeper	One in charge of hay ranch operations at Slough Creek.
1	Buffalo Herder	Assisting buffalo keeper (appointed August 1, 1924).
1	Park Naturalist	Scientific research work and developing museum.
1	Chief Park Ranger	In charge of ranger force.
1	First Asst. Chief Ranger	In charge of Northern District
2	Assts. Chief Park Rangers	1 on duty at Lake District; 1 in charge of Western Supervisory Territory.
27	Park Rangers (17 WAE)	Patrolling, handling tourist traffic, protecting game, policing stations, repairing trails and bridges, fire lookout work and miscellaneous duties.

<u>No.</u>	<u>Class</u>	<u>Kind of Work Performed</u>
51	Park Rangers, Temporary (WAE)	Patrolling, handling tourist traffic, building trails, fire lookout, lecture, guide, information, duty in Chief Ranger's office, miscellaneous duties under direction of station chiefs; and motorcycle patrol.

Leaves of Absence

W. H. Riley, Auto Mechanic, August 5, 7, 11 (3 days)
W. L. Bicket, Carpenter, August 7 (noon), 1/2 day.
Albert Collins, Electrician, August 18-23, 6 days.

Leave Without Pay

Daniel W. Tripp, Laborer, from August 1-31.
Nellie Roach, Telephone Operator, from August 1-31.

Promotions

Julius L. Greer, Park Ranger, temporary, from \$1440 p.a., and quarters, to permanent, \$1500 p.a., and quarters, when-actually employed, effective August 1, 1924.

Harlie Hodgins, Park Ranger, temporary, from \$1440 p.a., and quarters, to permanent, \$1500 p.a., and quarters, when-actually employed, effective August 1, 1924.

Edward E. Ogston, Park Ranger, temporary, from \$1440 p.a., and quarters, to permanent, \$1500 p.a., and quarters, when-actually employed, effective August 1, 1924.

Appointments

William Davis, Buffalo Herder, at \$1320 p.a., and quarters, WAE, entered on duty August 1st.

Arthur Jacobson, Park Ranger, at \$1500 p.a., and quarters, WAE, entered on duty August 1, 1924.

Elwood H. Schneider, Park Ranger, at \$1200 p.a., and quarters, WAE, entered on duty August 1st.

Harry D. Ballard, Park Ranger, at \$1200 per annum, and quarters, WAE., entered on duty August 1st.

Nelson E. Hall, Park Ranger at \$1500 p. a., and quarters, WAE., entered on duty August 1st.

William Ennis, Park Ranger at \$1200 per annum, and quarters, WAE., entered on duty August 4th.

Returned to duty from Furlough

Horace A. Hildreth, Park Ranger, at \$1200 p.a., and quarters, WAE., August 6, 1924.

Furloughed

Temporary Park Rangers:

Effective

Robert B. Armstrong, Jr.	\$1200 p.a., quarters, WAE	Aug. 4, 1924
Wasson W. Lawrence	1200 " " " "	" 13
Miss Margaret Thone	1200 " " " "	" 19
Irving P. Wiltse	1200 " " " "	" 19
Eugene K. Taggart	1200 " " " "	" 21
Raymond A. Hellickson	1200 " " " "	" 28
George M. Vandaveer	1440 " " " "	" 27
John R. Huffman	1440 " " " "	" 31
Harry D. Ballard	1200 " " " "	" 31
Sam W. Maphis	1200 " " " "	" 31
Walter Toevs	1440 " " " "	" 31
Leslie B. McFadden	1200 " " " "	" 31
William W. King	1440 " " " "	" 31
Kenneth S. Barnhill	1200 " " " "	" 31
W. J. Cribbs	1440 " " " "	" 31

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In addition to the regular employees listed above under appointment the following were employed temporarily by the day:

	<u>Aug. 1</u>	<u>Aug. 31</u>
Laborers	78	45
Skilled Laborers	30	25
Special Laborers	24	20
2 horse teamsters	58	37
4 horse teamsters	18	17

	<u>Aug. 1</u>	<u>Aug. 31</u>
Cooks	28	24
Waiters	2	3
Foremen	28	22
Axemen	10	7
Graders	10	12
Irrigators	4	4
Truck Drivers	23	17
Painters	7	1
Carpenters	8	10
Plumbers	5	5
Linemen	12	10
Blacksmiths	4	1
Mechanics	1	1
Total	<u>350</u>	<u>261</u>

III. WORK COMPLETED

(a) Construction of Physical Improvements

Gunbarrel Creek Bridge: The new bridge over Gunbarrel Creek was finished August 11th. This is a reinforced concrete structure of 24 feet span and is similar in design to the other concrete bridges in the Shoshone Forest Reserve. The temporary bridge will be used for the rest of the season and the new bridge opened to travel next spring.

Canyon Sewer Tank and Sludge Bed: Foreman White and 11 men with one team started work August 13th on the reinforced steel concrete tank, size 14'-6" x 42' x 10', designed by the Public Health Service. Excavation for the tank required the removal of 203 cubic yards of material. The floor of the sedimentation section and sterilization chamber has been constructed and the forms and steel for the sides and top have been placed. A 6 in. vitrified tile effluent pipe has been laid 150 ft. beyond the tank to a small creek which empties into the Yellowstone River. On this pipe line a 30" x 42" concrete weir box was built to measure the flow of the effluent. A 5' x 5' concrete valve chamber was built alongside of tank at the inlet.

The sludge bed, which is approximately 54' long and 42' wide, was stripped for an average depth of one foot and the back filling

with boulders, gravel and sand has been started. It will require 100 cubic yards of material to make this fill. The side walls have been built of loose rock, 18" bottom, 12" top, 24" high. The end wall was constructed from notched logs. This can be removed at any time in the future in case it is necessary to expand the sludge bed.

Construction in Dunraven Pass: Carpenter Foreman Eggerth, with two men, moved to Dunraven Pass on August 2nd to construct a bunk house and small ranger station. The bunk house, is of the log trim frame type, 16' x 24' inside dimensions, with a 6' porch. The bunk house was constructed for the snow removal crew on the early spring work and the maintenance crew that is located in Dunraven Pass during the summer months. The Ranger Station which is the log trim frame type building, is 12' x 16' inside dimension with a 6' porch. This ranger station is a general information office and the living quarters for the rangers stationed at the Mt. Washburn fire lookout. A large, dry toilet was constructed and an old toilet rehabilitated and moved to a better location. This construction was completed during the month and the carpenter crew moved to Tower Falls to rebuild the present rangers quarters there.

(b) Maintenance and Repair of Physical Improvements

Gravel Surfacing: The gravel surfacing project of the road between Firehole Cascades and Old Faithful was completed to Castle Geyser, a distance of 13.1 miles, of which 7.9 miles was covered in August. During the month gravel was taken from three different pits, one located between the road and river opposite Excelsior Geyser, the second between the road and river near the 3 mile post, and the third in the timber west of Castle Geyser.

The cost of this work has been approximately \$800 per mile which includes everything in connection with the surfacing job, shaping and preparing the road and placing a number of new galvanized iron culverts.

Two graders and a sprinkler were kept busy wetting and shaping the gravel as it was placed. The gravel is packing very satisfactorily but it will probably be next season, after the gravel has been on the road during the winter, before it is entirely worn down.

Ditching, Lake-Canyon Road: The crew of four men and three teams continued with the ditching work along both sides of the road in two places on the Lake-Canyon section. These ditches have a depth

of 24" and a bottom width of 24" with 1'-1' slopes. On account of the flatness of the country traversed by the road it was also necessary to cut many cross ditches to carry the water away from the road. The maintenance crew of four men and two teams under Foreman Roberts was detailed to ditching work on August 15th near Alum Creek, constructing the same type of ditch. About 25,000 lin. feet of ditch was dug during the month.

(c) Miscellaneous Improvement Work

The Master Painter and his assistants made and painted 350 signs; painted exterior of plumbing shop, lumber shed, truck shed, oil house, commissary building, Trischman's quarters, Bilkert's garage, old bakery building, truck and hose cart shed, bowling alley building, and roof of guard house.

The Steward and Master of Transportation supervised the hauling of freight and supplies from Gardiner to Mammoth and from Mammoth to points in the park. Camps were moved to new locations and some disbanded. Rations and other supplies were hauled to men fighting forest fires. In the storehouse supplies were received and issued, and camps checked in.

The Master Mechanic and his helpers repaired cars, trucks, motorcycles and general equipment. The blacksmiths shod horses and repaired heavy road machinery.

The Foreman of Stables and Grounds reports four men with teams about headquarters, freighting, feeding buffalo and sprinkling roads; 1 irrigator; 3 men caring for lawns; 1 general utility man; 3 men digging sewer ditch in automobile camp.

The Master Plumber and his helpers maintained the sewer and water systems at Mammoth; completed the Lake water system, laying 2000 ft. of galvanized iron water pipe, 700 ft. 3", 4000 ft. 1½", 1500 ft. 2½" and 500 ft. of ¾" water pipe. Eight flush toilets and two wash basins were installed.

The Power Plant was operated in the usual manner. It was run constantly with the results shown in comparison for August, 1923, as follows:

	<u>1923</u>	<u>1924</u>
Total current generated in KW hours	36,770	61,050.
Of this, sold to public utilities at 5¢ per KWH	16,074	23,794.46

	<u>1923</u>	<u>1924</u>
Consumed for street lighting	1,340	1,007.00
Balance, consumed in Government buildings, for power and lighting, lost on lines in transit, etc.	19,356	36,248.54
Peak load during month in KW	124	160

The Telephone and Switchboard Office was open daily from 6:30 A.M. to 12:00 midnight.

Switchboard Calls

	<u>1923</u>	<u>1924</u>
On Government local lines	14,505	21,253
On Hotel Company lines	1,659	2,385
Long Distance Connections	<u>571</u>	<u>529</u>
	16,735	24,167

Telegrams

Government Sent	170	126
Commercial Sent	<u>225</u>	<u>296</u>
	395	422
Government received	105	85
Commercial received	<u>129</u>	<u>113</u>
	234	198

Telephone Construction: Work was continued during the month and good progress made on the construction of the new Mammoth-Norris telephone line. A Park Service crew of 14 men and the Hotel Company's crew of 16 men completed the clearing of the right-of-way and setting of poles to the Norris Hotel, a distance of 20½ miles.

To avoid placing poles and stringing wire across Beaver Lake Meadow at Obsidian Cliff, 5 heavily insulated twisted pairs of #14 gauge telephone wire will be used for a distance of 1500 feet. These wires will be placed in a wooden box, 4 inches square, which will be attached to posts about two feet high.

Stringing the wires will begin about September 3rd. For the present only ten wires will be used, 4 for the Hotel Company and 6 for the Government.

Office Force

The office force was busy with usual routine work, which includes orders, payment of vouchers, preparation of accounts, reports, general correspondence, etc. 2141 pieces of official mail were received and 3082 were sent out during the month.

On August 6th, Mr. Noble J. Wilt, accountant from the Washington office, arrived in the park via West Yellowstone, and during the month assisted me in preparing the 1926 budget for the National Park Service. The budget, with justification of increases and schedules of possible reductions was completed on the morning of the 29th and Mr. Wilt took them to Washington, leaving the same morning via Gardiner.

(d) Service to the Public

Ranger guide service has been maintained throughout the season at Mammoth Hot Springs and Old Faithful with regular morning and afternoon schedules from both the hotels and camps. Numerous special parties have also had the benefit of ranger guide service throughout the season.

The parties from Old Faithful Hotel during the month total 4,418; from Old Faithful Camp 6,788; Special parties 56, making a grand total of 11,262 as compared with 12,332 for the same period last year.

The parties from Mammoth Hotel total 2,094; from Mammoth Camp 3,001; special parties 24, making a grand total of 5,119, as compared with 5,531 for the month of August last year.

The season total to date is 36,993, as compared with 39,877 for the season to September 1st, 1923.

Ranger duties have been widely varied and creditable work has been done. Innumerable messages, inquiries, telegrams and letters have been promptly handled by members of the ranger force with gratifying results. More than \$500 in currency and checks has been restored to persons who had lost or been wrongfully deprived of same; more than two dozen articles of wearing apparel and other personal property was restored to claimants and 18 unclaimed and unidentified articles are now on hand at headquarters. Guide service, lecture service, information service, fire and traffic patrols and fire fighting activities have provided members of this department with abundant opportunities for service.

Information Office: During August, 1924, a total of 12,528 people visited the information office and museum at headquarters as compared with 14,049 for the same period last year.

Following is a detailed statement showing sales records of the information office at Mammoth during the month:

<u>Article</u>	<u>Number</u> <u>1923</u>	<u>Price</u>	<u>Number</u> <u>1924</u>	<u>Price</u>
Haynes	324	243.00	153	114.75
Portfolio	519	519.00	133	133.00
Trees & Flowers	72	54.00	33	24.75
Antelope			16	4.80
Bulletin 611	17	8.50	18	9.00
Bulletin 612	9	4.50	4	2.00
Transcontinental AAA			1	2.00
Glimpses	75	7.50	165	16.50
Geological History	727	72.70	506	50.60
Geysers	720	72.00	423	42.30
Fossil Forests	340	34.00	273	27.30
Whitebar Elk	50	7.50	19	2.85
Fishes	104	5.20	90	4.50
Truthful Lies	58	14.50	50	25.00
Panoramic Maps	31	7.75	26	6.50
U. S. G. S. Maps	78	19.50	69	17.25
Foolish Questions	40	20.00	19	9.50
Nature Book			10	25.00
Chittenden			23	57.50
Geyserland			7	3.50
Trees & Shrubs			3	1.80
		<u>1,089.65</u>		<u>580.40</u>

IV. WORK IN PROGRESS

(a) Construction of Physical Improvements

Cache Creek Snowshoe Cabin: Absnowshoe cabin has been erected during the past two weeks near the head of Cache Creek. The work was performed in great part by ranger labor and is of the standard size and equipment. It is designed to facilitate winter patrols in an important game district and makes easily accessible a region heretofore remote and difficult to cover.

Trails: Trail work has been materially retarded by reason of the fact that the crews have been chiefly assigned to other work. First, they assisted with the haying at Yanceys, and thereafter were assigned to work on the new snowshoe cabin on Cache Creek. Trail crew members have also been engaged in fighting forest fires, but despite their varied activities a total of 16 miles of new trails have been built on Cache Creek, together with 20 miles of maintenance and repair on the Lamar and a new saddle horse bridge over Calfee Creek. Six miles of new trail has been built on Miller Creek.

(b) Maintenance and Repair of Physical Improvements

Loop Road: The loop road was maintained during the month by fourteen small crews located at the regular road camps. The work of these crews was devoted to placing gravel where mostly needed and grading the roads when conditions were suitable.

The Norris crew graveled slightly two miles of road between the Frying Pan and Norris Junction.

The Madison Junction crew graveled approximately one mile of the West Entrance road near the one mile post from Madison Junction.

The Lake crew graveled two sections of the road toward West Thumb, about $3/4$ of a mile altogether.

The Dunraven Pass, Tower Falls and Blacktail Deer Creek crews also placed considerable new gravel in addition to their other work of grading, etc.

In order to have more money for spring work some of these crews have been taken off rather early this year. Some were called in August 20th, others August 25th and 31st. By September 5th not more than four or five small crews will still be out.

Road Sprinkling: Sprinkling operations were continued during the month except two or three places. On the Continental Divide route the water supply became so low the sprinkler could not cover more than a third the territory, so was taken off August 20th. The Norris and Excelsior Geyser sprinklers and one at the Lake were laid off August 25th. All others will be laid off September 1st except one at Mammoth, one at Old Faithful and one at the Canyon.

Three men with a truck kept the system in repair. Four new 1,600 gallon tanks were installed and considerable new flume built. This crew also did some other work, planking bridges and repairing culverts.

Shoshone Forest Road: A crew of eight men and four teams was stationed at Goff Creek and a small crew of two men and one team at Elk Fork. In addition to general repair and grader work, the Goff Creek crew filled in the approaches to the new Gunbarrel Creek bridge which was excavated for 500 feet upstream from the bridge. Several short sections were graveled.

South Entrance Road: As this section has been in excellent condition during the summer, and as a matter of economy, the maintenance crew was laid off August 15th. The log bridge over Lewis River, 190 feet long, and the log bridge over Crawfish Creek were repaired and covered with plank laid lengthwise, two for each wheel track. Three bridges of 10 and 12 ft. spans were also planked.

East Entrance Road: The Cub Creek crew on this section was laid off August 25th. The Turbid Lake crew was transferred to Cub Creek. The East Entrance crew remained on their section all the month.

Teton Forest Road: The crew on this section worked between Arizona Creek and Moran, also between Moran and Elk post office. The log bridge over Pilgrim Creek, 363 feet long, was repaired and covered with plank laid lengthwise, two for each wheel track. General repair and grader work was done, mostly across Pilgrim Creek Flat and on the bad, rocky hills just north of the Flat. The road across the Flat and on to Moran is now in excellent condition, better than it has been for several years.

West Gallatin Road: As this section was in good condition and being used very little, the crew was taken off August 9th. When moving out the men and camp equipment one of the three-ton trucks broke through the old log bridge across Grayling Creek, about 1½ miles outside the park. Little damage was done but the crew was delayed a day, making temporary repairs. This bridge is unsafe for anything except light cars and should be rebuilt before another season, either by Gallatin County or the Park Service.

Cooke City Road: A crew of several men and three teams worked on the section all the month. The bad piece of road across Hopper's Prairie 1/2 mile in length was graveled. Two 18 inch and eight 12 inch galvanized iron culverts were placed between Lamar River and Soda Butte. All of the old pole culverts between Tower Falls and Soda Butte have now been replaced with galvanized iron.

Sanitation

(Public Health Service)

Mosquito Control Measures: A survey was made of the ground at the Lake and Canyon where ditching and tiling were necessary for future mosquito control. A plan was prepared for work the remainder of this season and for 1925 and work was begun on ditching and tiling at the Lake, Canyon and Camp Roosevelt.

Water Supply: Investigations were made of future possible water supplies at Old Faithful, Lake, Canyon and at Thumb, for use by the Camps Company, the Hotel Company and the government. Investigations were also made of the water supplies serving Old Faithful Inn, Old Faithful permanent camp and automobile camp, the spring supplies serving the Lake Hotel, permanent camp and automobile camp. Spirit level lines were run to Iron Creek at Old Faithful and to Cascade Creek at the Canyon in connection with these investigations. Twelve samples of water were collected during August and sent to the Montana State Board of Health for analysis. The results indicate good water supplies in the park.

Sewage Disposal: The septic tank for the Canyon automobile camp was rapidly nearing completion at the end of the month. Work was begun on this tank about August 8th. Four inspections were made.

The sewer extension to the Canyon Hotel sewer system is almost complete.

The design of a septic tank for the Eastern Entrance was completed during the month.

Swimming Pools: Four inspections were made of the swimming pool at Old Faithful and one of the swimming pool at Mammoth Hot Springs.

Garbage and Refuse Disposal: A special two-day investigation was made of the garbage and refuse disposed of by the various agencies operating at Old Faithful and a report was prepared. The bear dump was inspected at the Lake Hotel.

VII. POLICIES

No changes to note for August.

VIII. COST OF OPERATION

The cost of operation of Yellowstone National Park will be shown on the Cost Accounting Report for the month of August, which report will be forwarded shortly.

IX. OTHER MATTERS OF INTEREST

Wild Animals

Forage conditions are not satisfactory; the rainfall during the month has been slight and the grasses on the more important winter ranges are of short growth and prematurely cured. There is every indication of a shortage of winter forage on the lower ranges with proportionate game losses during the winter season. Should the approaching winter season be as moderate as the last the higher ranges may save the situation as forage is plentiful on all the higher slopes. A severe winter will almost certainly result in heavy game losses.

There has been no material change in game conditions during the past month, only a few scattered elk observable on the lower ranges and the drift thus far is slight. The calf crop appears to be normal but figures indicating percentage of increase are not available at this time. Antelope are most commonly seen near Tower Falls, Hellroaring and on the slopes of Specimen Ridge. They are in excellent condition. Several deer have been seen during the last ten days on the plaza at Mammoth Hot Springs and at nearby points. This is an unusually early date for their appearance and is referred to by old timers as an indication of an early and severe winter.

Moose have been reported at intervals throughout the season from widely separated localities. They are often seen at points near the highway. Mountain Sheep have not come down from their summer range and are rarely seen at this season of the year. Bears continue to be seen at their usual haunts but are not quite so numerous as they were earlier in the season. This, however, is in keeping with their habits and probably indicates that they are retiring to the berry patches.

Small animals - ground squirrels, woodchucks, etc., are seen in decreasing numbers as the fall season advances. Beaver have been unusually active this season and increasing interest in the habits and activities of this animal is evidenced by the number of visitors to the colonies at Yanceys and other points.

Fish and Fish Planting

Reports from exit stations show a total of 18,300 fish taken from the lakes and streams of the park during the month of August, which, together with 7,858 reported for the month of June and 22,648 reported for the month of July, makes a total of 48,806 for the season to date. These numbers do not include fish caught by rail tourists. Fishing has varied from fair to good throughout the month and the experienced angler has generally fared well.

Fish planting operations have been generally in charge of the Bureau of Fisheries except for a shipment from the Montana State Bureau of Fisheries which arrived early in the month and was planted by rangers as follows: 49,400 brook trout fingerlings were planted in the Gardiner River and its tributaries and 41,800 loch leven fingerlings were planted in the Gibbon River and its tributaries. The fish planting operations reported in July were incorrect in some particulars and pursuant to corrected reports submitted by Mr. H. J. Hoover of the Yellowstone Lake Fish Hatchery, correction is made at this time by giving a detailed statement of the entire fish planting operations for the season, which reads as follows:

Black Spotted Trout - Eyed Eggs

Aster Creek	150,000	Geode Creek	100,000
Arnica Creek	150,000	Grayling	100,000
Bridge Bay	150,000	Campanula	196,000
Bacon Rind Creek	150,000	Grinnell Creek	130,000
Broad Creek	150,000	Gallatin River	150,000
Bechler River	150,000	Hatchery	200,000
Black Tail Deer Creek	200,000	" #1	50,000
Columbine Creek	340,000	" #2	50,000
Clear Creek	1,000,000	Hellroaring	150,000
Chipmunk Creek	2,000,000	Lamar Valley	200,000
Cub Creek	500,000	Loone Lake	100,000
Cascade Creek	200,000	Libby Creek	100,000
Cascade, S Boundary	100,000	Long Creek	153,000
Crawfish	100,000	Maple	200,000
Elk Creek	100,000	Mountain Ash	100,000
Fish Lake	500,000	Middle Creek	200,000
Fan Creek	200,000	Pelican Creek	1,500,000
Flat Mountain Arm	400,000	Pebble Creek	100,000
Grouse Creek	1,000,000	Pole Cat	75,000
Grassy Creek	100,000	Rose Creek	50,000
Glade Creek	100,000	Soldiers	100,000
Streams - S E Arm	100,000	Solution	100,000

Soda Butte Creek	100,000	Tainters	50,000
Squaw Lake	50,000	Trout	150,000
Sloagh Creek	150,000	Fox	100,000
Thumb	250,000	Columbine	160,000 Fry
Thumb #2	200,000		

Total Plants for the year:

Eyed Eggs (Black Spotted Trout)	18,384,000
Fry " " "	160,000
Brook Trout fingerlings from Montana State Bureau of Fisheries	49,400
Loch Leven Trout fingerlings from Montana State Bureau of Fisheries	<u>41,800</u>
Grand Total	18,635,200

It will be observed from the foregoing that the fish planting activities of this season have broken all previous records and as heretofore remarked, the work has been chiefly under the direction of the Bureau of Fisheries with the cooperation and assistance of members of the ranger department whenever their services were desired.

Geysers and Hot Springs

Mammoth: (These notes were furnished by Ranger Kocher, whose duty it is to guide visitors over the formation twice daily).

Jupiter Hot Spring, immediately above Mammoth Camp, is apparently cooling. Canary Terrace, back of Jupiter Hot Spring, is diminishing slightly in volume, the water having changed its course, flowing more to the left as one faces the terrace, instead of pursuing its former course to the right. The terrace is just as vividly covered as it has ever been.

Angel Terrace has staged a small revival, the small spring at the right having increased its volume in almost the same proportion as the diminishing of Canary Terrace. Glen Spring, immediately back of Angel Terrace, is increasing in volume, having started this spring and gradually growing larger and larger and becoming much more worthy of note.

Bath Lake, which has a high level in the spring due to the melting snow, is gradually losing that high water mark. This is cus-

tomary as the warmer days in the latter part of the summer cause it to avaporate much more rapidly than earlier in the spring.

Orange Spring and Cleopatra Terrace are remaining constant in their water flow, no marked changes having been noticed.

Of all the hot springs at Mammoth the most radical in its changes is Hymen. Hymen Terrace has been most erratic in its flow of water during the season of 1924. It originally started to break out at a new point immediately below the Devils Thumb. This new spring flowed for exactly seven days, then disappeared as quickly as it started. Its beginning and end were completed within the course of three or four hours. One of the guides on his morning party noticed a slight disturbance in the soil. Upon his return in the afternoon he found a complete new spring. A week later this spring had completely disappeared. Throughout the course of the summer the spring has been constantly changing. During the present week the old lower Hymen terrace has staged a complete revival. A large hot spring of about twenty feet in diameter has become entirely filled with water and is apparently starting a much larger and newer spring. Because of this new spring the old springs of Hymen Terrace have diminished in volume, one of the three having become almost entirely extinct.

Norris: Ranger Chittenden reports what he believes to be two new geysers. One is small, similar to the Minute Man, and sends up a symmetrical column 4 to 10 feet. The other is directly across the road from Constant Geyser, 50 feet from the walk. It broke out on the afternoon of August 31st, just as the busses pulled in, and played continuously for thirty minutes, sending up a column of water and steam for 25 feet.

Upper Geyser Basin: Geysers in this region have been playing with usual regularity in most instances.

Whistle Geyser has played twice during the season, and Restless Geyser has played once. This is the first activity displayed on the part of the latter named geyser in a number of years. Both the Beehive and Giantess have played but once during the season.

Arrests & Violations of Law

A total of 17 arrests were made in the park during the month. Two men were apprehended on information from outside authorities advising that they were wanted on charges of felony. The first,

Alton Purdy, by name, was wanted for the theft of a Ford coupe. He was placed under arrest by rangers at Old Faithful station and pending the departure for Mammoth eluded the ranger charged with his custody and made his escape. The car was subsequently delivered to the owner after proper identification had been made. The other, Gardner Lawrence Alwood, was apprehended and placed under arrest at Mammoth public automobile camp on August 31st by a ranger from Gardiner station on information charging him with forgery. He is now in custody pending the arrival of an officer from Battle Creek, Michigan who desires to return him to that point.

There were six arrests for speeding; 3 for violating the Federal Prohibition Act; two for defacing the geyser formations; 1 for larceny and 1 for the unauthorized possession of traps and trapping equipment within the park.

A brief of the cases brought before the United States Commissioner during the month is noted as follows:

U. S. vs. J. E. Williams

Charge: Speeding

Arresting Officer: Kenneth C. Wahl, Park Ranger

Plea: Guilty

Disposition: Fined \$10.00 and costs; total \$15.50.

U. S. vs. John A. O'Connor

Charge: Violation of the Federal Prohibition Act

Arresting Officer: Quentin D. Wert, Park Ranger

Plea: Guilty

Disposition: Fined \$100.00 and costs, total \$106.40.

U. S. vs. Leo Mathias

Charge: Theft of personal property

Arresting Officer: C. W. Trinneer

Plea: Guilty

Disposition: Fined \$25.00 and costs; total \$30.50.

U. S. vs. Mrs. David Keith

Charge: Speeding

Arresting Officer: M. Z. Ferguson, Park Ranger

Plea: Guilty

Disposition: Fined \$10.00 and costs; total \$15.50.

U. S. vs. Donald A. Lallemant

Charge: Speeding

Arresting Officer: Kenneth C. Wahl, Ranger

Plea: Guilty

Disposition: Fined \$11.00 and costs; total \$16.50.

U. S. vs. J. D. Judd

Charge: Speeding

Arresting Officer: Kenneth C. Wahl, Park Ranger

Plea: Guilty

Disposition: Fined \$10.00 and costs; total \$10.50.

U. S. vs. Alfred Stebbins

Charge: Defacing geyser formation

Arresting Officer: John Huffman, Park Ranger

Plea: Guilty

Disposition: Fined \$15.00 and costs; total \$20.50

U. S. vs. A. J. Donovan

Charge: Speeding

Arresting Officer: Russell Sprinkel, Park Ranger

Plea: Guilty

Disposition: Fined \$10.00 and costs; total \$15.50.

U. S. vs. F. G. Youngberg

Charge: Speeding

Arresting Officer: Kenneth C. Wahl, Park Ranger

Plea: Guilty

Disposition: Fined \$12.00 and costs; total \$17.50.

U. S. vs. B. L. Wilt

Charge: Speeding

Arresting Officer: M. Z. Ferguson, Park Ranger

Plea: Guilty

Disposition: Fined \$10.00 and costs; total \$15.50.

U. S. vs. Henry Redeke

Charge: Defacing geyser formation

Arresting Officer: Henry O. McCormick, Park Ranger

Plea: Guilty

Disposition: Fined \$10.00 and costs; total \$15.50.

Leonard Pierce: Apprehended for the theft of \$98.48. This case was never formally presented to the court. His extreme youth (16 years) was considered a circumstance warranting moderation and upon it being brought to the Court's attention that a responsible citizen of Pittsburg, Pennsylvania was willing to pay the boy's expenses to that point and place him in a well ordered house where he would receive proper schooling and other consideration calculated to promote his best welfare, and it was readily agreed by the Court and all others concerned that the boy should accompany the gentleman from Pennsylvania which he was very pleased to do.

U. S. vs. Barent W. Williams and Gibson Gardner
Charge: Violation of the Federal Prohibition Act
Arresting Officer: Harry J. Liek, Park Ranger
Plea: Guilty
Disposition: Fined \$100.00 each and costs; total \$206.40.

U. S. vs. Billie Burton
Charge: Unauthorized possession of traps and trapper's equipment in connection with circumstances aggravating the offense.
Arresting Officer: Henry O. McCormick, Park Ranger.
Plea: Not Guilty.
Disposition: Fined \$25.00 and costs; total \$30.50. Directed to leave the park at once.

Very few minor infractions of park regulations have been reported during the month, only 8 instances being brought to the attention of the Chief Ranger's office, seven of which received reprimands. The eighth was a case of reckless and careless driving by an employee of the Yellowstone Park Transportation Company. He was discharged from further service as being unsuited for the work.

Forest Fires

The month of August has been characterized by frequent local electrical disturbances but rainfall has been slight and lightning has been responsible for nine out of ten forest fires occurring during the month. Five of these fires were of serious proportions. A brief statement of the time, place and extent of the fires is given as follows:

August 5th - fire located on Spring Creek near the seven mile post on the highway from Basin to Thumb. Area burned over about 25 acres. Slight damage to forest. Ground fire. Eleven men were on this fire for about 14 hours. Cause of fire, lightning.

August 17th - Fire observed from Mt. Washburn at a point $3\frac{1}{2}$ miles south of the seven mile post on the Gibbon River - Norris to Madison Junction - this fire was fought by seven rangers for about 18 hours before it was brought under control. The area burned over was about 40 acres of second growth pine which was densely littered with fallen timber. Cause of fire, lightning.

August 18th - Fire occurred at Fish Lake (Soda Butte District) and was discovered and extinguished by Ranger Dupuis, who worked with it for $7\frac{1}{2}$ hours. It was caused by lightning and no timber of value was destroyed.

August 17th - Fire discovered by Rangers from Tower Falls Station at a point $1\frac{1}{4}$ mile south of the junction of the petrified tree road and the main road, Mammoth to Tower Falls. Area burned over $1\frac{1}{4}$ acre. Time required to extinguish fire was 5 hours, number of men employed 5 (3 rangers and 2 road crew men). Cause of fire, lightning.

August 26th - Ranger Jacobsen, reported fire from Purple Mountain Lookout, which was located at a point about 4 miles north and west of Iron Spring - elevation about 8000 feet - and well up on the slope of a mountain. There was no possible approach except afoot through dense fallen timber. The fire was reached about midnight and was fought continuously by a crew of 11 men for about 18 hours, when it was brought under control. The area burned over was about 40 acres and fortunately, very little valuable timber was destroyed. Cause of fire, lightning.

August 28th - Ranger Ballard observed fire from Mt. Washburn at a point about 7 miles west of Lewis Lake. This fire was of serious proportions and required the labor of 36 men for about 72 hours, when the fire was brought under control. On the 2nd of September the fire was reported as being out of control again and crews were again rushed to the fire. At this writing (September 9th) it is again under control, due in part to a recent heavy rain in that section. This is the most serious fire Yellowstone has had for years but fortunately, there has been very little destruction of valuable timber. The chief concern caused by the fire was the fact that it was adjacent to dense timber and rapidly approached the point where, if it had not been checked, it would have gotten into the heavy timber. This is particularly true around Shoshone Lake. It is estimated that 2500 acres have been burned over.

August 30th - Ranger Ballard reported from Mt. Washburn lookout station a fire located on Spruce Creek, about 4 miles south and west of Mary Mountain. This fire was limited in area but required the services of four rangers for about 12 hours before it was brought under control.

August 30th - Ranger Ballard reported from Mt. Washburn lookout station a fire located on Stevenson Island, Yellowstone Lake. Its apparent origin was a campfire. It was promptly extinguished by rangers from Lake Station but not without leaving quite an ugly scar in the timber growth of the island. Efforts to learn the identity of recent visitors to the island have not been successful to date.

August 30th - Fire observed from Mt. Washburn lookout station at a point on the Madison Plateau, presumably near the head of the Little Firehole River. Repeated efforts to locate this fire from both the east and west approach were not successful until September 1st, when the fire was found to be on the Madison Plateau. The fire was extinguished on September 5th, having covered an area of 350 acres. No valuable timber was lost.

August 29th - A fire of somewhat similar characteristics was reported by yellow bus drivers and their passengers on the evening of August 29th. It was reported as clearly distinguishable from a point seven miles east of Mammoth Hot Springs on the road to Tower Falls. Several rangers from Mammoth Station proceeded to this point and confirmed the report and the Chief Buffalo Keeper made a similar observation from a point near the Buffalo Ranch. The fire was adjudged to be located in Cottonwood Basin, and a crew of seven men was organized and patrolled the entire region without locating the fire. No further signs of fire have been observed from this district and the presumption is that the fire was of lightning origin and that it burned itself out or was extinguished by a local shower known to have occurred in that district on the same evening the fire was reported. The fire fighting activities have been in most instances under the personal supervision of the Chief Ranger and splendid results have been accomplished under usually trying circumstances and in this connection I will remark that on August 30th four serious forest fires were in progress at widely separated points in the park.

Accidents and Casualties

Dr. S. N. Hamer and wife, 313 Grant Street, Denver, Colorado.
J. C. Nichols, et al of Meeteetse, Wyoming.

August 3rd. Collision. Damages amicably adjusted between the parties involved.

Mr. James Porter, of Graham, Texas.
Other party unknown.

August 4th. Met another car on grade and becoming alarmed, applied brakes and skidded off the road. No injuries and no damages of any consequence. Accident occurred near Sylvan Pass.

Mr. R. D. Harris, St. Paul, Minnesota.
Yellow Bus #703

August 4th. Collision on highway near Sylvan Pass.
Slight damages.

Leo Schivend, wife and 4 children.
driving Overland car, Montana
license #31753, Permit #6813.

August 7th. Car ditched on account of defective steering
gear. One front wheel broken off, axle and steering gear
bent, no one injured.

Leo D. Nicholas, Greenville, Mich.
J. P. Alberger, Cody, Wyoming.

August 10th. Rear end collision when passing on up grade.
Moderate damages. Some evidence of speeding.

Harry Briggs, 1016 W Pine St., Santa Ana, Calif.
Other party unknown.

August 10th. Collision on down grade, near Inspiration Point.
Damages slight. No personal injuries.

John O'Leary. 719 East 6th St., Leadville, Colo.
Yellow Bus #256

August 10th. Collision on highway in Sylvan Pass district.
Slight damages to car. No personal injuries.

Mr. Stoll, Pocatello, Idaho, Sec'y Idaho Chamber of Commerce
Yellow Bus #214

Collision on highway between Lake and Canyon. Some damages
to private car. No personal injuries.

Accidents resulting in personal injuries involve the following named
persons:

Mr. J. P. Shaw, driving Oldsmobile, Utah License #17570, Permit #33075.
Harold Haimline. Ford, Illinois License #884644, Permit #15536.

August 30th. Rear end collision near Madison Junction. W

Narrow road. Attempt to pass. Damages to car and personal injuries of minor nature; both parties apparently at fault.

Dewey Birch, wife and 6 children
Utah Ford #16-193, Salt Lake City.

Car left road at high speed on north slope of Mt. Washburn. Cause, defective brakes. Some damages to car and minor personal injuries. August 15th.

Donald Stewart, Chicago, Illinois.

August 20th. Cut leg near knee joint with hunting^{knife} at a point 15 miles up Snake River from the Snake River Ranger Station. The wound was dressed by Dr. Wolfe and patient brought to hospital at Mammoth Hot Springs (Distance over 100 miles).

Vivian R. Hellman Burble, #110 St. James Terrace, Yonkers, New York.

August 8th. Personal injuries caused by a bear at a point on the highway two miles west of Madison Junction. The attack is alleged to have been made without warning and without provocation and while the complainant was examining an automobile tire which was thought to have been punctured. The injuries were serious and painful and consisted of a bite causing an ugly wound on the hip. There were no witnesses to the incident other than the parties in interest and the only statement we have of the affair is that of the injured person which was made to Park Rangers at West Yellowstone.

Miss A. H. Taborsky
Mrs. H. E. DeRoque,
Mrs. G. Kleeberg, all of
Chicago, Illinois.

August 7th. Mrs. Kleeberg was charged with having defrauded the complainants out of \$150.00 and that she intended leaving them in the park without funds or other visible means of support. An inquiry was made by the Chief Ranger and by mutual understanding a refund of \$110.00 was made to the complainants.

Annual Cooke City Fish Fry

On the 3rd of August the "Old Timers" of Cooke City held their Annual Fish Fry, and visitors attended from miles around. It is interesting to note the travel figures for this park gateway for the season of 1924 as compared with last year:

		<u>Cars</u>	<u>People</u>	
1923	August 4th	10	39	
	5th	33	<u>137</u>	
				176
1924	August 2nd	17	51	
	2nd	61	<u>245</u>	
				296

Eagle Scout Trail

Thirty-two Eagle Boy Scouts, chosen scouts from Montana, Idaho, Oregon and Washington, under the direction of A. G. MacLay, of Great Falls, Montana; A. D. Dayton, Walla Walla, Washington; B. Elevins, Pocatello, Idaho; M. L. Crouch, Great Falls, and Walter Dyke of Cleveland, arrived on August 10th for the purpose of spending ten days on trail construction work in Yellowstone National Park.

They started work on the trail at once and in ten days had built six miles of splendid trail from Chittenden Bridge towards Ribbon Falls. In addition, they repaired and built other short sections of trail in the vicinity of the Canyon.

Simple dedicatory ceremonies were held on August 21st, at which time the boys were highly complimented for their fine spirit and work accomplished.

It is certain that the Eagle Scouts were under splendid leadership and the Scout masters deserve the highest praise.

Special Visitors

Mr. Garet Garrett, writer for the Saturday Evening Post, entered the park via Gardiner on August 6th and left via West Yellowstone on the 10th.

Mr. Garrett spent the first day in the park at headquarters examining our clipping books regarding the various irrigation projects affecting the park. On the following morning, in company with the Chief Ranger, he made a trip to Old Faithful and went on to Moran for the night. The Chief Ranger showed him much of the country proposed to be included in the park and Mr. Garrett had an opportunity to observe the unfortunate condition of Jackson Lake, the beauty of which was destroyed by the reclamation dam. Returning to Lake Yellowstone on the night of August 8th I joined Mr. Garrett there, leaving the Chief Ranger, and took the writer to Cody and the Shoshone reclamation project, returning with him and Judge Edwards on the 10th.

Mr. Garrett was apparently gathering data regarding irrigation and reclamation projects and I have no idea as to whether or not he intends to write an article regarding the park.

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I met Judge John H. Edwards, the Solicitor of the Department, at Deaver, Wyoming, on the main Denver-Billings branch of the Burlington. I had a park car and had with me Garet Garrett, the Saturday Evening Post writer. After picking up Judge Edwards we inspected the Shoshone reclamation project, stopping for a while at the town of Powell and talking with its prominent citizens and then getting into Cody in time for dinner. We visited the Buffalo Bill Memorial, talked with a number of prominent Cody citizens and spent the night at the Cody Inn, coming into the park the following morning, August 10th.

At the Canyon Hotel Mr. W. M. Nichols and Mr. Vernon Goodwin, of the Hotel and Camps Companies, respectively, joined Judge Edwards and stayed with him at the hotel that night. The following day they brought the Judge to headquarters. On Tuesday, the 12th, I took him to Old Faithful and from there the Chief Ranger escorted him to the Jackson Hole and back to the Canyon Hotel. From thence he came to Mammoth with me. On the 16th the Judge left the park via Gardiner.

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Mr. Merle Thorpe, Editor of Nation's Business, entered the park via Gardiner on July 27th and left on the 25th of August via the same gateway. Mr. Thorpe gathered much information regarding operations here and expects to write three or four articles for his magazine, these articles to relate particularly to operations here and not to be merely descriptive of the wonders of the park.

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Mr. Will O. Doolittle, Managing Editor of Parks and Recreation, Minot, South Dakota, entered the park via Gardiner on the 22nd, and left via the southern entrance. Mr. Doolittle was particularly anxious to cover the park and observe operations and also to get a view of the proposed extension to the park. We arranged for him to get out to the Buffalo Ranch and to take several other side trips in the park that ordinary visitors do not take. We also arranged for him to get horses in the Jackson Hole and take a day's trip into the Tetons. From there he went down to the North Rim of the Grand Canyon and to Zion Park.

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Hon. Robert D. Carey, Ex-Governor of Wyoming, entered the park by Cody on August 5th, accompanied by Mrs. Carey, his mother, widow of ex-U. S. Senator J. M. Carey, his brother, Charles D. Carey and family, and Mr. Lafayette Hughes and his son, of Denver. The party left via the southern entrance on August 8th.

Hon. Jos. W. Byrns, Congressman from Tennessee, and Mrs. Byrns, arrived in the park via Gardiner on August 12th and left via West Yellowstone on the 20th.

Hon. Fred A. Britten, Congressman from Illinois, accompanied by his mother and sister, toured the park, entering via Cody on the 10th, and leaving via Gardiner on August 25th for Glacier National Park. The party visited the Jackson Hole country.

On August 31st Hon. L. T. McFadden, Congressman from Pennsylvania and Chairman of the Committee on Banking and Currency, entered at West Yellowstone, fished on Lake Yellowstone on September 2nd, and visited the Buffalo Ranch for the stampede on the 3rd. He left via West Yellowstone on the 4th.

On August 29th, Hon. Chas. E. Winter, Congressman from Wyoming, and Mrs. Winter, entered at Cody gateway, and on the 30th left via the southern gateway.

Hon. P. W. Snyder, State Senator from Pennsylvania, entered the park on the 25th via West Yellowstone and left via Cody on the 29th.

Dr. Philip Work, of Denver, Colorado, son of Secretary Hubert Work, entered the park via Cody on August 17th, accompanied by Mrs. Work and her parents. They left via West Yellowstone on the 21st.

On August 2nd Hon. Liang Shih-Yi, Former Premier of China, entered the park via West Yellowstone, and left on August 8th via

Gardiner, after spending three days at headquarters.

Supt. Chas. J. Kraebel, of Glacier National Park, arrived in the Yellowstone on August 16th and returned to Glacier on the 19th. Mr. Kraebel consulted with Superintendent Albright on matters relating to highways.

Mr. H. B. Hommon, Sanitary Engineer, U. S. Public Health Service, entered Gardiner on August 23rd, and left via Cody on August 30th. Mr. Hommon made this trip in the interest of sanitation work in the park.

Mr. Francis P. Farquhar, Field Accountant of the National Park Service, San Francisco, arrived via Gardiner on the 22nd, and left via West Yellowstone on the 27th. This was Mr. Farquhar's first trip to Yellowstone Park during the park season.

On August 10th, Dr. J. C. Evenden, Entomologist, again visited Yellowstone Park, coming in via the Snake River entrance, and gave particular attention to the insect infestation in the West Yellowstone district. Dr. Evenden left on the 14th.

Mr. A. A. Anderson, first superintendent of Forest Reserves adjacent to east and south boundaries of Yellowstone Park, entered the park via Cody on August 10th and left via the same gateway on the 16th.

On August 3rd, Mayor Arthur E. Nelson, of St. Paul, entered the park via Gardiner, and on the following day left via the same gateway. The Mayor was the guest of Mr. Jack E. Haynes.

Mr. Edmund Seymour, President of the American Bison Society, and Mrs. Seymour, entered the park via Gardiner on August 30th, and left via the same gateway on September 3rd. The Seymours went to the Jackson Hole country on the day following their arrival in the park, and on September 3rd attended the stampede at the Buffalo Ranch, held in Mr. Seymour's honor.

Mr. Robert F. Abercrombie of Von Lengerke and Antoine, Chicago, and his nephew, Abbott Abercrombie, entered the park via Gardiner on August 24th, and left via Cody the evening of September 4th.

Mr. Roy Carruthers, Managing Director, Waldorf-Astoria Hotel, New York, arrived via West Yellowstone on August 18th, and left via the same gateway on August 20th.

Mr. Chas. H. Saffell, Post Office Inspector, Washington, D. C., entered the park via Gardiner on August 10th and left via the same gateway on the 14th.

Mrs. Bessie Y. Riddell, Art Editor of the Saturday Evening Post, arrived in the park via Gardiner on August 12th, and left via Cody on the 21st. While here Mrs. Riddell visited the Cooke City region and the Jackson Hole.

On the 10th of the month the Valley Ranch Boys' party left the park via Cody. On the 9th the Girls' party left via the same gateway.

On the 7th of August, a party of 24 girls from Moccasin, Arizona, in charge of Bishop McAllister, entered the park via West Yellowstone and toured the park as guests of Director Mather, the Yellowstone Park Camps Company and the Yellowstone Park Transportation Company. They left on the 10th via the same gateway.

Mr. Thos. A. Dines, President of the Midwest Refining Company, Denver, and Judge James Owen, of Wyoming, entered the park via Cody on the 30th and left via Cody on September 1st.

Mr. John Ihlder, Manager of the Civic Development Department, United States Chamber of Commerce, Washington, D. C., Mrs. Ihlder, and Mr. Chauncey D. Snow, Manager of the Foreign Commerce Department, entered the park via Cody on August 21st and left via Cody on the 28th.

Mr. Frank R. Hussey, Business Manager of the Chicago Evening Post, entered the park via Gardiner on August 26th, and left via Cody on September 5th.

Mr. Jerome Alexander, chemist from New York, entered the park August 31st and spent several days here.

Mr. Thomas Hanna, son-in-law of John Muir, and son, Strentzel Muir Hanna, entered the park on August 26th and left via Gardiner on September 4th. They attended the buffalo stampede on September 3rd.

Mr. D. C. Jackling, President of the Utah Copper Company, entered the park via West Yellowstone on August 10th and left via the same gateway on August 12th.

Mr. F. A. Seiberling, President of the Goodyear Fire and Rubber Company, accompanied by Mrs. Seiberling and son, of Akron, Ohio, reached the park via Gardiner on August 4th and left via Cody on the 6th. Mr. M. W. Harrison, Vice President of the National Savings Banks Association, New York, and Mrs. Harrison accompanied the Seiberlings.

Sickness & Medical Attention

Dr. J. M. Wolfe continued his medical service in the park during the month and reports having made 25 professional calls on park people and 75 office calls.

Dr. Geo. A. Windsor, surgeon in charge of the park hospital, reports the following for the park season: 1 insane; 6 scarlet fever; 4 diphtheria; 15 major accidents; 50 medical; 25 major surgicals; and 15 minor surgicals.

Post Office

Business in all departments of the post office showed a substantial increase over last year. The highest percentage of gain was in the money order and postal savings business, which is largely due to a complete lack of banking facilities in or near the park since the failure of Yegen Bros. Bank at Gardiner.

Daily carrier service has been maintained without a break around the loop since the opening of the season on June 20th, and is well patronized.

Religious Services

Catholic mass was held every Tuesday and Thursday morning at 7:00 o'clock; and twice every Sunday morning at 6:00 and 8:00 o'clock, by Rev. John Spillane, of Powell, Wyoming.

Protestant Service were held as follows: Episcopal, morning of August 3rd; morning and evening August 24th. English Lutheran, evening of August 3rd; morning and evening of August 10th; morning of August 17th; Baptist evening of August 17th. The Episcopal services, both morning and evening of August 14th, were conducted by Rt. Rev. Frederick W. Faber, Bishop of Montana. The other services were conducted by the regular ministers of their various denominations from Livingston, Montana.

Miss Cloris Aiken, known as "The Sunshine Girl of the Argonne", when she was overseas with the Salvation Army during the World War, held service in the Chapel just before the regular evening service on August 10th. The same evening she held an informal service in the public automobile camp at park headquarters.

Motion Picture Permits

During the month permits to take motion pictures in the park were issued to the following people:

J. Earl Else, M.D., of the University of Oregon, Portland, Oregon, dated August 7th.

Clark E. Mickey, University of Nebraska, Lincoln, Nebraska, dated August 18, 1924.

Jas. Barbarita, O.T.O. Ranch, Corwin Springs, Montana, dated August 25th, 1924.

Circulars

The following circulars were issued during the month, and a copy of each is hereto attached.

<u>No.</u>	<u>Date</u>	<u>Regarding</u>
21	August 15	Settlement of long distance toll accounts
22	August 23	Assignments of permanent rangers to winter stations.

IX. RECEIPTS AND REMITTANCES

Certified check #414, dated August 14, 1924, drawn by Vernon Goodwin on the National Bank of Montana, Helena, Montana, to the Director, National Park Service, amount \$ 418.65

Certified check #219, dated August 12, 1924, drawn by Anna E. Pryor on the National Park Bank, Livingston, Montana, to the Director, National Park Service, amount 34.25

Certified check #158, dated August 7, 1924, drawn by J. E. Haynes on the First National Bank of St. Paul, St. Paul, Minnesota, to the Director, National Park Service, amount 35.38

Certified check #1092, dated August 12, 1924, drawn
by Geo. Whittaker on the Northwestern National
Bank, Livingston, Montana, to the Director,
National Park Service, amount \$ 75.40

Total \$563.68

Cordially yours,

Horace M. Albright,
Superintendent.

The Director,
National Park Service,
Department of the Interior,
Washington, D. C.

JSS

Department of the Interior
National Park Service
Yellowstone National Park
Yellowstone Park, Wyoming.

August 15, 1924.

CIRCULAR NO. 21.

Complaint has been made by the Mountain States Telephone & Telegraph Company that settlements of long-distance toll accounts are unduly delayed. A review of unpaid bills on hand and previously settled accounts discloses that individuals are very lax in making payments for long distance calls, even after they have been billed.

It has been customary to render bills for toll service on the 1st, or as soon thereafter as is found possible, of each month; payment to be made by the 20th of the month following the month in which the service was rendered.

This office intends to assist the Mountain States Telephone & Telegraph Company, and hereby serves notice that a charge of 10% additional will be levied for each week, or fraction of week, payment has lapsed, provided that bills submitted must bear date of the 10th of the month, or earlier, for which payment will be made by the 20th.

HORACE M. ALBRIGHT
Superintendent

DEPARTMENT OF THE INTERIOR.
NATIONAL PARK SERVICE—YELLOWSTONE NATIONAL PARK.

CHIEF RANGER'S MONTHLY TRAVEL REPORT, MONTH OF *August*, 192*4*

	NORTH.		WEST.		EAST.		SOUTH.		ALL TRAIL ENTRANCES.		SUMMARY.	
	Cars.	People.	Cars.	People.	Cars.	People.	Cars.	People.	Horses.	People.	Cars.	People.
Automobile permits issued	2425	7997	3258	11422	3489	11501	1026	3458			10198	34378
Automobile permits issued (complimentary)			6	16	4	15	5	10			15	41
Cars entering second time	232	843	250	889	138	455	63	236			683	2423
Motor-cycle permits issued	12	19	8	8	21	31	7	8			48	66
Total	2669	8859	3522	12335	3652	12002	1101	3712			10944	36908
Passengers in horse-drawn vehicles												
Passengers on horseback												
Passengers on bicycles		⊗ 114		35		90		17				256
Passengers on foot												
Total incoming passengers with private transportation	2669	8973	3522	12370	3652	12092	1101	3729			10944	37164
WITH HIRED TRANSPORTATION.												
Yellowstone Park Transportation Co		4681		7243		2942		70				14936
Total incoming passengers with hired transportation												
TOTAL INCOMING PASSENGERS	2669	13654	3522	19613	3652	15034	1101	3799			10944	52100

Total automobiles in public camping grounds

Total automobiles campers in public camping grounds

Total incoming passengers Cooke City stage

SEASON TOTAL END OF LAST MONTH

Total visitors Cave Falls—Bechler River Region

SEASON TOTAL TO DATE

Department of the Interior
National Park Service
Yellowstone National Park

1924 COMPARATIVE TRAVEL FIGURES WITH 1923 AND 1922
SEASON TO AUGUST 31ST, INCLUSIVE

1 9 2 4								
ENTRANCE	RAIL (People)			MOTOR		MISC.		T O T A L
	Hotels	Camps	Total:	Rail	Cars	People:	People:	
North	5673	5543	11216	8007	25832	441		37,549
West	10578	7349	18427	8941	30592	91		49,110
East	3266	3311	6577	8978	29535	304		36,416
South	99	82	181	2779	9136	38		9,355
T o t a l	19616	16785	36401	28705	95155	874		132,430
1 9 2 3								
ENTRANCE	RAIL (People)			MOTOR		MISC.		T O T A L
	Hotels	Camps	Total:	Rail	Cars	People:	People:	
North	5930	5583	11513	8203	27104	508		39,125
West	12613	8421	21034	5940	21117	167		42,318
East	3343	3645	6988	7040	23604	335		30,927
South	47	30	77	4031	12518	46		13,641
T o t a l	21933	17679	39612	25216	85343	1056		126,011
1 9 2 2								
ENTRANCE	RAIL (People)			MOTOR		MISC.		T O T A L
	Hotels	Camps	Total:	Rail	Cars	People:	People:	
North	4681	4544	9225	4999	17958	332		27,515
West	8989	6721	15710	4666	16705	536		33,001
East	2332	2695	5027	5475	18490	322		23,839
South			90	1432	5140	82		5,312
T o t a l	16002	13960	30052	16572	58293	1322		89,667

TRAVEL RECORDS BROKEN IN 1924

Greatest number of automobiles and passengers entering park on single day, 502 cars and 1844 passengers on July 22nd; previous record 475 cars and 1623 passengers on July 17, 1923.

INTERESTING NOTE

Nine days in August with over 2,000 visitors.

SUMMARY OF AUGUST TRAVEL

Total travel for month, 52,100; last year 52,718 - Loss 618.

Total travel by rail for month, 14,936; last year 16,469 - Loss 1,533.

Auto. & Misc. travel for month, 37,164; last year 36,249 - Gain 915.

STATEMENT SHOWING AUTOMOBILE TRAVEL BY STATES
YELLOWSTONE NATIONAL PARK - TO AUGUST 31, 1924, INCLUSIVE

NAME OF STATE	North		West		East		South		Total	
	: Pass- :		: Pass- :		: Pass- :		: Pass- :		: Pass- :	
	: Cars :	: engers :	: Cars :	: engers :	: Cars :	: engers :	: Cars :	: engers :	: Cars :	: engers :
Alabama	: 3 :	: 9 :	: 5 :	: 18 :	: 4 :	: 9 :	: 3 :	: 13 :	: 15 :	: 49 :
Arizona	: 14 :	: 43 :	: 29 :	: 81 :	: 35 :	: 103 :	: 10 :	: 27 :	: 88 :	: 254 :
Arkansas	: 11 :	: 41 :	: 24 :	: 85 :	: 43 :	: 148 :	: 12 :	: 42 :	: 90 :	: 316 :
California	: 884 :	: 2522 :	: 1266 :	: 3744 :	: 287 :	: 851 :	: 137 :	: 449 :	: 2574 :	: 7566 :
Colorado	: 73 :	: 201 :	: 151 :	: 456 :	: 586 :	: 1834 :	: 243 :	: 708 :	: 1053 :	: 3199 :
Connecticut	: 16 :	: 59 :	: 12 :	: 41 :	: 24 :	: 70 :	: 6 :	: 18 :	: 58 :	: 188 :
Delaware	: 4 :	: 11 :	: 2 :	: 8 :	: 3 :	: 6 :	:	:	: 9 :	: 25 :
Dist. of Col.	: 9 :	: 27 :	: 9 :	: 29 :	: 8 :	: 24 :	:	:	: 26 :	: 80 :
Florida	: 15 :	: 40 :	: 14 :	: 32 :	: 37 :	: 108 :	: 9 :	: 32 :	: 75 :	: 212 :
Georgia	: 4 :	: 9 :	: 7 :	: 22 :	: 2 :	: 4 :	:	:	: 13 :	: 35 :
Hawaii	: 101 :	: 314 :	: 1548 :	: 6068 :	: 43 :	: 146 :	: 211 :	: 769 :	: 1903 :	: 7297 :
Illinois	: 391 :	: 1347 :	: 179 :	: 550 :	: 624 :	: 2034 :	: 99 :	: 288 :	: 1293 :	: 4219 :
Indiana	: 130 :	: 422 :	: 79 :	: 256 :	: 192 :	: 596 :	: 21 :	: 64 :	: 422 :	: 1338 :
Iowa	: 216 :	: 692 :	: 107 :	: 354 :	: 491 :	: 1622 :	: 56 :	: 188 :	: 870 :	: 2856 :
Kansas	: 58 :	: 197 :	: 130 :	: 416 :	: 390 :	: 1358 :	: 127 :	: 381 :	: 705 :	: 2352 :
Kentucky	: 14 :	: 62 :	: 18 :	: 61 :	: 20 :	: 73 :	: 2 :	: 5 :	: 54 :	: 201 :
Louisiana	: 9 :	: 27 :	: 7 :	: 22 :	: 27 :	: 79 :	: 16 :	: 41 :	: 59 :	: 169 :
Maine	: 5 :	: 20 :	: 7 :	: 20 :	: 4 :	: 9 :	:	:	: 16 :	: 49 :
Maryland	: 3 :	: 6 :	: 4 :	: 9 :	: 16 :	: 46 :	: 3 :	: 13 :	: 26 :	: 74 :
Massachusetts	: 41 :	: 121 :	: 28 :	: 84 :	: 72 :	: 236 :	: 17 :	: 45 :	: 158 :	: 486 :
Michigan	: 205 :	: 625 :	: 100 :	: 315 :	: 258 :	: 834 :	: 37 :	: 101 :	: 600 :	: 1875 :
Minnesota	: 419 :	: 1346 :	: 102 :	: 333 :	: 337 :	: 1145 :	: 18 :	: 76 :	: 876 :	: 2900 :
Mississippi	: 6 :	: 18 :	: 6 :	: 18 :	: 20 :	: 73 :	: 7 :	: 23 :	: 39 :	: 132 :
Missouri	: 86 :	: 285 :	: 137 :	: 411 :	: 359 :	: 1140 :	: 88 :	: 247 :	: 670 :	: 2083 :
Montana	: 2037 :	: 6966 :	: 843 :	: 3018 :	: 618 :	: 2153 :	: 25 :	: 85 :	: 3528 :	: 12227 :
Nebraska	: 110 :	: 345 :	: 98 :	: 302 :	: 565 :	: 2023 :	: 103 :	: 342 :	: 876 :	: 3012 :
Nevada	: 11 :	: 30 :	: 71 :	: 222 :	: 5 :	: 18 :	: 13 :	: 43 :	: 100 :	: 313 :
New Hampshire	: 5 :	: 12 :	: 3 :	: 8 :	: 8 :	: 25 :	: 1 :	: 2 :	: 17 :	: 47 :
New Jersey	: 48 :	: 132 :	: 45 :	: 133 :	: 57 :	: 173 :	: 15 :	: 42 :	: 165 :	: 480 :
New Mexico	: 7 :	: 19 :	: 15 :	: 49 :	: 15 :	: 43 :	: 13 :	: 50 :	: 50 :	: 161 :
New York	: 130 :	: 400 :	: 75 :	: 229 :	: 220 :	: 644 :	: 37 :	: 108 :	: 462 :	: 1381 :
North Carolina	: 4 :	: 10 :	: 3 :	: 8 :	: 7 :	: 25 :	: 2 :	: 9 :	: 16 :	: 52 :
North Dakota	: 207 :	: 694 :	: 65 :	: 209 :	: 181 :	: 611 :	: 6 :	: 16 :	: 459 :	: 1530 :
Ohio	: 153 :	: 485 :	: 150 :	: 477 :	: 401 :	: 1247 :	: 81 :	: 258 :	: 785 :	: 2467 :
Oklahoma	: 35 :	: 128 :	: 113 :	: 399 :	: 305 :	: 1026 :	: 144 :	: 471 :	: 597 :	: 2024 :
Oregon	: 195 :	: 623 :	: 460 :	: 1474 :	: 58 :	: 194 :	: 28 :	: 73 :	: 741 :	: 2364 :
Pennsylvania	: 116 :	: 344 :	: 80 :	: 255 :	: 203 :	: 694 :	: 41 :	: 123 :	: 440 :	: 1416 :
Rhode Island	: 4 :	: 11 :	: 1 :	: 2 :	: 5 :	: 13 :	:	:	: 10 :	: 26 :
South Carolina	: 4 :	: 12 :	: 3 :	: 10 :	: 4 :	: 15 :	:	:	: 11 :	: 37 :
South Dakota	: 139 :	: 475 :	: 46 :	: 133 :	: 179 :	: 578 :	: 11 :	: 38 :	: 375 :	: 1224 :
Tennessee	: 6 :	: 16 :	: 20 :	: 61 :	: 19 :	: 66 :	: 9 :	: 39 :	: 54 :	: 182 :
Texas	: 37 :	: 118 :	: 120 :	: 390 :	: 336 :	: 1116 :	: 105 :	: 352 :	: 598 :	: 1976 :
Utah	: 44 :	: 142 :	: 1492 :	: 5648 :	: 46 :	: 156 :	: 286 :	: 1085 :	: 1868 :	: 7031 :
Vermont	: 2 :	: 6 :	: 5 :	: 15 :	: 3 :	: 8 :	:	:	: 10 :	: 29 :
Virginia	: 8 :	: 29 :	: 8 :	: 27 :	: 13 :	: 36 :	: 4 :	: 9 :	: 33 :	: 101 :
Washington	: 723 :	: 2269 :	: 425 :	: 1381 :	: 130 :	: 439 :	:	:	: 1278 :	: 4089 :
West Virginia	: 9 :	: 28 :	: 10 :	: 34 :	: 35 :	: 129 :	: 45 :	: 140 :	: 99 :	: 331 :
Wisconsin	: 272 :	: 865 :	: 86 :	: 280 :	: 234 :	: 779 :	: 24 :	: 79 :	: 616 :	: 2003 :
Wyoming	: 122 :	: 388 :	: 103 :	: 326 :	: 1144 :	: 3853 :	: 492 :	: 1682 :	: 1861 :	: 6249 :
Alaska	: 2 :	: 5 :	: 1 :	: 4 :	: 1 :	: 4 :	:	:	: 4 :	: 13 :
U. S. Govt.	:	:	: 5 :	: 20 :	: 1 :	: 2 :	: 1 :	: 3 :	: 7 :	: 25 :
Canada	: 168 :	: 596 :	: 35 :	: 122 :	: 26 :	: 28 :	: 4 :	: 18 :	: 233 :	: 834 :
Hawaii	: 6 :	: 20 :	: 4 :	: 16 :	: 2 :	: 7 :	: 1 :	: 3 :	: 13 :	: 46 :
Mexico	:	:	:	:	:	:	: 1 :	: 5 :	: 1 :	: 5 :
Panama	: 1 :	: 5 :	: 1 :	: 2 :	:	:	:	:	: 2 :	: 7 :
New Zealand	:	:	: 1 :	: 4 :	:	:	:	:	: 1 :	: 4 :
Total	: 7322 :	: 23617 :	: 3363 :	: 28691 :	: 8703 :	: 28728 :	: 2614 :	: 8605 :	: 27002 :	: 89641 :
Unclassified	:	:	:	:	:	:	:	: 1703 :	:	: 6388 :
Grand Total	:	:	:	:	:	:	:	: 28705 :	:	: 96029 :